

Application Number 10/722,628
Amendment Dated August 7, 2006
Reply to Office action of June 8, 2006

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Amended) A pressure balancing cartridge for use in an anti-scald hot and cold water mixing valve, and the pressure balancing cartridge comprising a casing, a sleeve within the casing, and a reciprocating balancing spool within the sleeve, the improvement comprising:

the sleeve and spool being molded of a very high temperature ultra lubricated plastic resin to prevent thermal malformation thereof due to prolonged contact with hot water, and to prevent the build up of mineral deposits and debris commonly found in aqueous solution in water supplies, within the mixing valve.

2. (Previously Amended) The cartridge of claim 1 wherein the plastic resin is a PTFE compound.

3. (Previously Amended) A pressure balancing cartridge for use in an anti-scald hot and cold water mixing valve, the cartridge comprising at least a casing, a sleeve within the casing, a metal stem engaged within one end of the sleeve, and a reciprocating balancing spool within the sleeve, the improvement comprising:

a biasing spring inserted between the stem and the

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top end of the balancing spool to protect the spool from "water shock" effect and to mechanically shear away and mechanically digest any contaminant deposits in the area of the spring.

4. (Original) The cartridge of claim 3 wherein the spring biases the balancing spool away from the stem.

5. (Previously Amended) A pressure balancing cartridge for use in an anti-scald hot and cold water mixing valve the cartridge comprising at least a casing, a sleeve within the casing, a metal stem engaged within one end of the sleeve, and a reciprocating balancing spool within the sleeve, the improvement comprising:

the sleeve and spool being molded of a very high temperature ultra lubricated resin or plastic; and

a biasing spring inserted between the stem and an end of the balancing spool adjacent the stem.

6. (Original) The cartridge of claim 5 wherein the preferred resin is one which is ultra lubricitous and very high temperature.

7. (Original) The cartridge of claim 5 wherein the spring biases the balancing spool away from the stem.

8. (Previously Amended) A pressure balancing cartridge for use in an anti-scald hot and cold water mixing valve, the cartridge comprising at least a casing, a sleeve within the casing having a reciprocating balancing spool within the sleeve; the improvement

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comprising:

the sleeve being made of a very high temperature ultra lubricitous plastic resin.

9. (Previously Amended) The cartridge of claim 8 wherein the plastic resin is a PTFE compound.

10. (Previously Amended) A pressure balancing cartridge for use in an anti-scald hot and cold water mixing valve, the cartridge comprising at least a sleeve having a reciprocating balancing spool within the sleeve; the improvement comprising:

the spool being made of a very high temperature ultra lubricitous plastic resin.

11. (Original) The cartridge of claim 10 wherein the plastic resin is a PTFE compound.

12. (Original) A pressure balancing cartridge comprising at least a casing, a sleeve within the casing, a metal stem engaged within one end of the sleeve, and a reciprocating balancing spool within the sleeve, the improvement comprising:

the sleeve being molded of a very high temperature ultra lubricated resin or plastic; and

a biasing spring inserted between the stem and an end of the balancing spool adjacent the stem.

13. (Original) A pressure balancing cartridge comprising at least a casing, a sleeve within the casing, a metal stem engaged

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within one end of the sleeve, and a reciprocating balancing spool within the spool, the improvement comprising:

the spool being molded of a very high temperature ultra lubricated resin or plastic; and

a biasing spring inserted between the stem and an end of the balancing spool adjacent the stem.